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RARE BRITISH BIRDS IN THE HUMBER DISTRICT.

By JOHN CORDEAUX.

MOST of the species enumerated in the following list as having occurred in this district during the last ten years have already been recorded in print in 'The Ibis,' 'The Zoologist,' 'The Naturalist,' 'Migration Reports, 1879—88,' 'The Field,' and other journals, and some few so far only in manuscript. These are now collected and brought together for the first time, with the dates of occurrences, locality, references to published records, and, where possible, the name of the present owner, or the museum or private collection where the specimen is deposited.

WHITE'S THRUSH, *Turdus varius*, Pallas.—One, now in a small private collection of birds belonging to Mr. R. T. Burnham, of Rimswell, near Withernsea, was shot in that neighbourhood in November, 1881 (Zool. 1882, p. 174). A second was shot at Waplington Manor, Pocklington, January, 1882 (Zool. 1882, p. 74; 'The Field,' 1882, p. 201). This last was in the possession of Mr. J. J. Leman, late M.P. for York, at the time of his death.

DESERT WHEATEAR, *Saxicola deserti*, Rüppell.—One, a female, shot between Easington and Kilnsea on Oct. 17th, 1885 (Zool. 1885, p. 479; Nat. 1884-5, p. 387). Is now in the collection of Mr. J. H. Gurney, of Keswick Hall, Norwich.

BLACK REDSTART, *Ruticilla titys* (Scop.).—The occurrences are numerous. It is a casual spring and autumn migrant; in the former season arriving, as a rule, earlier than the Common Redstart, and in the autumn about four weeks after the passage of the

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same species. Considerable numbers are recorded as occurring at Flamborough on May 10th and 11th, 1891, with the Common Redstart (Nat. 1891, p. 182).

BLUETHROAT, *Cyanecula suecica* (Linn.).—Several occurrences. Spurn, Sept. 11th, 1882, two immature birds, one obtained (Mig. Rep. 1882, p. 31; Zool. 1884, p. 174). Spurn, 1883, one late in September, not obtained (Mig. Rep. 1883, p. 38). Spurn, 1884, Sept. 15th, two, adult and immature, one shot; 18th, three shot, adult and young; many seen (Mig. Rep. 1884, p. 44; Zool. 1884, p. 430). Spurn, Oct. 7th, 1885, two (Mig. Rep. 1885, p. 41). Spurn, 1886, Sept. 14th, one immature (Mig. Rep. 1886, p. 31). Examples probably occur every year in some part or other of the coast on migration in September with an east wind.

BARRED WARBLER, *Sylvia nisoria* (Bechst.).—An immature female in the collection of the Rev. H. H. Slater, of Irchester Vicarage, was obtained by himself at Spurn on Aug. 28th, 1884 (Zool. 1884, p. 489; Nat. 1884-5, p. 91).

FIRE-CRESTED WREN, *Regulus ignicapillus* (C. L. Brehm).—1889, on Nov. 4th, an adult male was killed by a boy with a stone at Easington, and is now in my possession (Nat. 1890, p. 11).

YELLOW-BROWED WARBLER, *Phylloscopus superciliosus* (J. F. Gmelin).—One was seen and watched for some time at early morning in October, 1889, in his garden at Mount Pleasant, Easington, by Mr. H. B. Hewetson, of Leeds; not obtained (Nat. 1890, p. 38).

ICTERINE WARBLER, *Hypolais icterina* (Vieill.).—May 28th, 1891, an adult male obtained at Easington (Zool. 1891, p. 308; Nat. 1891, p. 241). In the Science and Art Museum, Edinburgh.

BLACK-BELLIED DIPPER, *Cinclus melanogaster* (C. L. Brehm.).—One shot in the autumn, about 1884, in the marsh district below Louth, is in the collection of Mr. H. T. Wintringham, The Abbey, Grimsby (Nat. 1890, p. 8). Another shot on Oct. 24th, 1885, on the Humber embankment in Stallinborough parish (Mig. Rep. 1885, p. 40), is in the collection of Mr. R. W. Chase, Edgbaston Road, Birmingham.

RICHARD'S PIPIT, *Anthus richardi*, Vieill. — One seen by me near the Lincolnshire coast at Tetney, Oct. 12th, 1887, was not obtained (Mig. Rep. 1887, p. 40; Zool. 1888, p. 62).

RED-BREASTED FLYCATCHER, *Muscicapa parva*, Bechst.—1889, Oct. 23rd, an immature bird shot at Scarborough (Nat. 1890,

p. 14), is in the collection of Mr. J. H. Gurney, Keswick Hall, Norwich.

TWO-BARRED CROSSBILL, *Loxia bifasciata* (C. L. Brehm).—1889, Aug. 12th, one, an immature bird, shot near Easington. This was not preserved, but was subsequently identified from a wing by the Rev. H. H. Slater (Nat. 1889, p. 314). A very handsome adult male in my possession was shot at South Cockerington, near Louth, in the autumn of the same year (Nat. 1890, pp. 2—5). This is illustrated in Lord Lilford's 'Coloured Figures of the Birds of the British Islands,' part xix.

CIRL BUNTING, *Emberiza cirrus*, Linn.—1887, Jan. 5th, an adult male was seen by me in this parish, the black throat broken with grey; not obtained (Cordeaux MS.). 1889, Dec. 10th, Mr. G. H. Caton Haigh, when driving from Grainsby to Grimsby, saw one on a hedge-top (Haigh, *in litt.*). Both these are mid-winter occurrences.

ORTOLAN, *Emberiza hortulana*, Linn.—1883, May 3rd, one, an adult female, at Great Cotes (Zool. 1883, pp. 253-4; Mig. Rep. 1883, p. 44). 1889, Oct. 11th, an immature female shot by Mr. H. B. Hewetson in a stubble near Easington, and is in his collection (Nat. 1890, p. 8).

BRANDT'S SIBERIAN BUNTING, *Emberiza cioides*, Brandt.—One was caught alive in an easterly gale by a fisherman under the cliffs at Flamborough Head in November, 1886, and subsequently purchased from Mr. Matthew Bailey of that place in June, 1888, by Mr. R. W. Chase, of Birmingham, in whose collection it now is (Nat. 1889, pp. 79, 113, 334, 356). It is figured and described in 'The Ibis' for 1889, pp. 293—295.

RUSTIC BUNTING, *Emberiza rustica*, Pallas.—1881, Sept. 17th, one, a female, shot on the coast near Easington. This bird is now in the York Museum (Zool. 1881, p. 465; Mig. Rep. 1881, p. 25).

LAPLAND BUNTING, *Calcarius lapponicus* (Linn.).—1881, Dec. 27th, one shot at Tetney Lock (Mig. Rep. 1881, p. 25). 1884, Nov. 8th, an adult male near Grimsby; also a probable female in October of the same year (Zool. 1884, p. 484). 1890, Nov. 18th, a female in winter plumage, shot on the North Cotes sea-bank, and now in the collection of G. H. Caton Haigh, of Grainsby Hall (Zool. 1891, p. 217; Nat. 1891, p. 26).

EUROPEAN SHORE LARK, *Otocorys alpestris* (Linn.).—Must now be considered a fairly regular visitor to the east coast, and

often in very considerable numbers, arriving about the same time as the Snow Buntings.

SARDINIAN STARLING, *Sturnus unicolor*, de la Marmora.—In 1886, Mr. J. Backhouse recognised an apparently immature male of this species in a case of stuffed Starlings belonging to the collection of the York Blue Coat Boys' School, and his diagnosis of the species was subsequently verified by Mr. Dresser, who also saw the bird. A label found in the case stated, "Presd. by G. Wright, 31, Fossgate, 1840; Blk. Starling, shot nr. Howden" (Nat. 1886, p. 307).

ROSE-COLOURED STARLING, *Pastor roseus* (Linn.).—1884, Aug. 30th, an adult female shot near Spurn, and another reported to have been seen (Mig. Rep. 1884, p. 53).

NUTCRAKER, *Nucifraga caryocatactes* (Linn.).—1888, Nov. 6th, one shot at Marsh Chapel, a parish on the Lincolnshire coast, now in the collection of Mr. G. H. Caton Haigh, of Grainsby Hall (Zool. 1889, p. 153; Nat. 1889, p. 44).

INDIAN ROLLER, *Coracias indicus*, Linn.—1883, Oct. 27th, one shot at Muckton, near Louth, and erroneously recorded at the time as *Coracias garrulus*, Linn. (Zool. 1884, p. 185); subsequently, in September, 1890, when the bird was purchased by me, as *C. indicus* ('The Ibis,' 1891, pp. 147-8). Museum of Zoology, Cambridge.

EUROPEAN BEE-EATER, *Merops apiaster*, Linn.—1880, August 16th, one shot at Tetney Haven, now in collection of Mr. T. Marshall, High Wycombe, Bucks ('The Field,' Sept. 11th, 1880; Zool. 1880, p. 511).

TENGMALM'S OWL, *Nyctala tengmalmi* (Gmel.).—1880, Oct. 22nd, a fine adult bird killed on the sand-hills near Saltfleet Haven by Captain Pretymann, then resident with his father at Carlton, near Louth (Zool. 1880, p. 512). 1884, Oct. 18th, a fine adult at Holmpton in Holderness, formerly in Mr. Philip Loten's collection at Easington (Nat. 1884, p. 112). Between 1883 to 1885 three near Scarborough; dates unrecorded (Zool. 1886, p. 214).

LITTLE OWL, *Athene noctua* (Scop.).—1884, November, one, now in Mr. J. Whitaker's collection at Rainworth Lodge, taken on board a fishing-smack off Scarborough; and about six months later another was trapped near Seamer, four miles from Scarborough (Nat. 1885, p. 336).

EAGLE OWL, *Bubo ignavus*, Forst.—In the winter of 1879–80 one was seen at Easington, in Holderness, and remained all night in a tree in a cottage garden (Cordeaux MS.). Another, presumably of the same species, was observed on the sand-hills on several occasions in October, 1888 (Nat. 1889, p. 2).

GOLDEN EAGLE, *Aquila chrysaëtus* (Linn.).—One was shot by Mr. J. Coulthurst, then keeper to Sir R. Sheffield, in Normanby Park, on Nov. 1st, 1881, and is now in his possession at his farm, West Halton, near Doncaster (Cordeaux MS.).

WHITE-TAILED EAGLE, *Haliaëtus albicilla* (Linn.).—An immature female, now in the possession of Mr. J. C. Chubley, of Kilnsea, was shot by him at Spurn on Oct. 28th, 1889, and another seen at the same time (Nat. 1890, p. 10). A remarkably fine *adult* with a white tail was seen by Mr. Chubley, who attempted to stalk it, while it rested on a block of ice on the coast near Kilnsea, on Jan. 23rd, 1891 ('The Field,' Feb. 14th, 1891).

NIGHT HERON, *Nycticorax griseus* (Linn.).—One, an immature bird, shot near the entrance to Tetney Haven, on Nov. 26th, 1888 (Zool. 1889, p. 33; Nat. 1889, p. 3). In collection of Mr. G. H. Caton Haigh, of Grainsby Hall.

LITTLE BITTERN, *Ardetta minuta* (Linn.).—1881, Sept. 23rd, a young male shot at Goole, in collection of Mr. W. Eagle Clarke (Zool. 1884, p. 177; Nat. 1881, p. 66; Mig. Rep. 1881, p. 29).

WHITE STORK, *Ciconia alba*, Bechst.—One, a mature bird in good condition of plumage, was found, on April 8th, 1888, floating dead at sea off Scarborough (Zool. 1888, p. 269; Nat. 1888, p. 169). On Aug. 2nd, 1890, a Stork was basely shot from a chimney-top at Mappleton, near Hornsea ('The Field,' Aug. 9th, 1890).

GLOSSY IBIS, *Plegadis falcinellus* (Linn.).—1881, an immature bird shot at Skegness on Sept. 9th, and another on the 27th (Mig. Rep. 1881, p. 29; Zool. 1882, p. 22).

SNOW GOOSE, *Chen hyperboreus* (Pallas).—Three undoubted examples were seen in flight near Beverley in January, 1891 ('The Field,' Jan. 24th, and Feb. 7th, 1891).

EASTERN TURTLE DOVE, *Turtur orientalis*.—1890, Oct. 23rd, one, in first year's plumage, captured near Scarborough by a local gunner (Nat. 1890, p. 258). Presented by Mr. J. Backhouse to the York Museum.

BAILLON'S CRAKE, *Porzana bailloni* (Vieillot). — One, a male, in the collection of the Rev. H. H. Slater, was shot at Holmpton, in Holderness, in September, 1880 (Zool. 1884, p. 179), (Slater MS.).

KENTISH PLOVER, *Ægialitis cantiana* (Lath.).—1881, Oct. 8th, one, in immature plumage, shot on Lincolnshire coast (Zool. 1882, p. 74).

RED-BREASTED SNIPE, *Macrorhamphus griseus* (J. F. Gmelin). —An adult in an advanced state of moult, changing from the Knot-like plumage of summer to the grey of winter, was shot near Tetney Haven on Aug. 15th, 1882 (Zool. 1882, p. 392). It was sent by me at the time to the Museum of Zoology, Cambridge, but was found to be too far gone for preservation.

PECTORAL SANDPIPER, *Tringa maculata*, Vieillot. — An adult male, shot on the Holderness coast, near Kilnsea, on Oct. 2nd, 1888, by Mr. T. W. Pool, of 3, Park Street, Hull (Nat. 1888, p. 354; 1889, p. 1), is illustrated in Lord Lilford's 'Coloured Figures of the Birds of the British Islands,' part xiv.

TEMMINCK'S STINT, *Tringa temminckii*, Leislar. — One killed against telegraph-wire near Lincoln, spring of 1884 (Nat. 1884-5, p. 32). Three seen, one shot, Spurn, Sept. 15th, 1887 (Mig. Rep. 1887, p. 32). Is probably of more frequent occurrence on the east coast in the autumn than is generally supposed, and is overlooked. May be readily recognised by its peculiar call-note when once learnt.

SPOTTED REDSHANK, *Totanus fuscus* (Linn.). — Many occurrences; it is not unfrequently met with on the coast in September, October, and early in November. Must be considered a regular immigrant in the autumn, in limited numbers.

SABINE'S GULL, *Xema sabinii* (Joseph Sabine). — September, 1889, one shot off Flamborough Head (Nat. 1889, p. 333). 1890, Sept. 9th, two shot off Flamborough; Sept. 15th, two (Nat. 1890, p. 318). One also Oct. 7th, and another Oct. 13th (Nat. 1890, p. 354). Of the 1890 birds, one adult and one in first plumage are in the museum, York.

IVORY GULL, *Pagophila eburnea* (Phipps).—1883, March 29th, 30th, 31st, an adult seen on the coast between Grimsby Fish Dock and Cleethorpes on each of these days by Mr. T. Fisher, of Greenwich (Zool. 1883, p. 258).

EARED GREBE, *Podiceps nigricollis*, C. L. Brehm. — 1882, autumn, three near Lincoln (W. Barber), ('Stamford Mercury,'

Jan. 26th, 1883). 1887, Sept. 3rd, an immature male shot at Spurn by Mr. W. Eagle Clarke (Mig. Rep. 1887, p. 30). 1889, Dec. 16th, one, a female, at sea off Scarborough (Zool. 1890, p. 77).

AN IMMIGRATION OF HAWFINCHES.

By O. V. APLIN, M.B.O.U.

DURING the moderately open winter of 1889—90, Hawfinches were unusually abundant in Oxfordshire, and attracted the attention of many people. There can indeed be little doubt that a considerable immigration of Hawfinches to this district took place some time at the end of 1889; and, although I have seen little or no notice taken of a similar abundance in other counties, it seems highly probable that the movement was not merely a local and internal one, but that the birds came from abroad.

Although we do not often hear much about visitations of this species (at all events since the Hawfinch has become so much more abundant as a resident than it used to be), the fact is mentioned in Professor Newton's 'Yarrell,' thus, "for it would seem that it occasionally migrates to this country in considerable flocks" (vol. ii. p. 101). The Hawfinch figures in the East Coast of England Migration Reports for three successive years, at the Inner Dowsing light-vessel. The dates were:—1882, October 20th, two; 1883, November 2nd,* one (at Heligoland, October 31st and November 1st, many); 1884, October 22nd, one, came on board and then flew west. At Heligoland, according to Mr. Gätke, the Hawfinch is a well-known visitor in spring and autumn; "always some, but no numbers" (Migration Report, 1882).

Hawfinches have visited Oxfordshire in exceptional numbers in other winters. In that of 1878—9, when this bird was still considered very rare as a resident, a few specimens were procured, and others were observed. In 1880—81 they were much more numerous, and about twenty were taken to the Banbury bird-stuffers, most of them having been picked up in a starved condition. One peculiarity is, in my experience, common to almost all, if not all, the males killed here in those winters in

* The birds procured in 1882 and 1883 proved to be Bramblings. Mig. Rep. 1885, p. 45, note.—Ed.

which this species has been more abundant than usual, *viz.*, they are very brightly coloured in comparison with those individuals which breed with us. And I think this fact can only point to their foreign origin. It is worth while considering where these immigrants may come from.

The range of the Hawfinch, according to Prof. Newton's edition of 'Yarrell,' is shortly as follows:— Found occasionally in the extreme south of Norway; in Sweden it extends further north (Mr. Howard Saunders says that it is only a winter visitor even to South Scandinavia). Still rarer in Finland. In Russia, not generally north of 60° (but Mr. Harvie Brown informed Prof. Newton that an example had been obtained at Archangel); more common in the south. Throughout Middle and South Siberia. In Mongolia rather numerous, and said to be of double passage. In China it ranges from Peking to Shanghai, and occurs in Japan; examples from this locality have been described as a variety *C. vulgaris japonicus*, but are said by Mr. Dresser to be matched by those from Spain and Italy. Not yet in India (in the north-west of which country Mr. H. Saunders says the paler *C. humii* occurs), but found, though rarely, in Persia. Resident in Asia Minor. Met with once in Palestine and occasionally strays to Egypt, where a single example is said to have been procured. More frequent in Algeria. Scarce in Morocco. Throughout Europe, the northern parts excepted as above mentioned, but local. It is generally a resident as to the adults, but the young of the year wander in autumn.

There is a note in the 4th edition of 'Yarrell' to the effect that Mr. Dresser states that the Hawfinches from Northern Europe are duller than those from more southern countries, but that natives of our islands are perhaps the duller of all, though sometimes a British example may be found as richly coloured as any from Southern Europe. I take it that these exceptional birds were migrants. As our winter birds are brighter than the breeding resident examples, the former *may* of course come from Northern Europe, or from more southern countries. That might perhaps be decided by actual comparison. We should not, however, expect an immigration of birds either from Spain or Italy in winter, and, granting that the birds procured with us in some seasons are too bright to have emanated from Northern Europe, we must look eastward for their home.

Looking at the range of the Hawfinch as here sketched out, some part of Eastern Europe indeed at once suggests itself as the probable starting-point of these uncertain and irregular migratory flocks. From the existence (according to Mr. H. Saunders) in East Siberia, North China and Japan, of the brilliantly-coloured *C. vulgaris japonicus* (said by Mr. Dresser to be matched by specimens from Spain and Italy), we should naturally expect the Hawfinch of Eastern Europe to be tolerably brightly coloured, and we should in this way account for the presence in England, during the winter months, of Hawfinches more brilliantly-coloured than we might reasonably expect migratory individuals from Northern Europe to be.

The immigrants now under consideration apparently reached Oxfordshire at the end of November, although more birds were seen at the end of winter and in early spring than in autumn. On December 1st I had news of a pair seen in a garden at Kingham, and on the 5th a pair were seen at Bodicote pecking about under yew trees; the latter pair were seen on several subsequent occasions, once twisting about the outside of the yew branches and probably picking off the shrivelled berries. I examined two bright males and a female, which were shot at Shenington on the 12th; another was shot and others seen about the same time. About the 15th a party of five (two of which were much brighter in plumage than the others) were observed at Sarsden; these roosted at night in high laurels. A male was shot at Surrford on January 2nd, and on the 16th I received a female from Shenington. The crop and stomach of this bird were full of what I have not the least doubt were grains of wheat bitten in pieces. On the 23rd I had news from an Oxford bird-stuffer that he had recently had several; two of them were from Garsington, and he had heard of others in different parts. A pair were also seen on two occasions in January in a garden at Drayton. On the 11th of February a Banbury stuffer told me that he had received thirteen up to that date. These included three from Shenington mentioned above; the others came from Hook Norton, Wardington, Williamsote and Broughton. I saw several of these in his shop. About this date I heard that a Newbury (Berks) bird-stuffer had had several recently. I saw another bright male which had been shot at Hook Norton that month, and on the 10th had examined in the flesh the best male bird I ever saw; the

bay on the head and tail coverts so brilliant, the grey of the nape so pure, and the steel blue or purple and white of the wings so intense and pure; a lovely "blossom pink," as M^yer call it, on the breast. Two were shot at Sibford that month, on the 8th and 12th respectively. On the 21st a hen bird was seen feeding on haws in a bush at Milcombe. On the 28th I heard that many frequented the grounds at Williamsote. A pair were seen on the 25th, apparently feeding on the berries of an Irish juniper, but generally they were seen in holly trees, on which there were still plenty of berries. A male was picked up dead on the 25th, having evidently flown against a greenhouse. At the end of the month one was shot at Handborough, and three others were reported as daily visiting a garden there about the third week in March ('Oxford Times'). The same newspaper (March 31st) contained a note to the effect that about a dozen had been observed feeding on holly berries in the grounds of the County Asylum at Littlemore. The observer had seen none there before, and stated that only two were males. Some of them were easily trapped, and were tame in a cage. They fought a good deal among themselves when at liberty, and a caged female killed a male Chaffinch. Two shot at Witney, and three seen at the Mount, Oxford, were also reported in the 'Oxford Times' about this date; also one seen in the "Parks," Oxford, in March. A male and two females were observed at Williamsote on the 1st of March; and on the 28th a pair were seen at Bodicote.

About the 2nd of April a Hawfinch was shot at Adderbury. They still frequented the grounds at Williamsote in the middle of that month; five were seen on the 14th; and the next day two males were fighting in the garden. About this time, or rather earlier, a number came every morning to feed in and under a remarkably prolific holly tree (still bearing a quantity of berries) in Bloxham. Eight were counted on the 15th, and a few were seen the next day. They were observed to fight very much among themselves. Where they passed the day was not discovered, for they always departed about nine o'clock, when the men came about the garden again from breakfast.

After this date I heard no more of the Hawfinch, and I believe that the greater part of them at all events left the district.

So far from the birds being found breeding with us in larger numbers than usual during the summer of 1890, the only nest I

heard of in the county was taken at Sarsden in June. A Hawfinch, seen between Woodstock and Glympton on the 1st of June, was also doubtless breeding.

Hawfinches seem to have been as scarce with us during the past winter (1890—91) as they were numerous the season before. I did not see a single specimen at the bird-stuffers, and did not hear of any being seen in the county until March 11th, when I was asked to name a bird which had flown against a window in Banbury, and had been picked up in a half-stunned condition. This was a fine male, which had fully assumed the blue bill of spring.

The Hawfinch seems rather given to flying against glass; another instance has been already noted above; and I examined a male which had flown against a window at Broughton on the 7th of May, 1889.

The males which I examined in the flesh during the immigration had the legs and feet pale flesh colour, with a shade of brown; the legs of a female bird I noted as very pale brown with a strong pink tinge, *i. e.*, a little browner than those of the males.

It is worth recording that in 1889 there was a very small crop of fruit on the hawthorns, although the hollies were tolerably well furnished. On the other hand 1890 was a great berry year, and the oaks, beech, and alders, carried a good crop, although apples and stone fruits were scarce.

WINTER NOTES FROM CORSICA.

By JAMES BACKHOUSE.

DURING a few weeks spent last winter in the island of Corsica, it was my endeavour, as far as possible, to give to the birds of that charming little country special attention, both in the field and by the daily examination of the Ajaccio market.

The severity of the past winter on the Continent will long be remembered with a shudder in the south as well as in the more northerly countries: such intense cold in the Italian Riviera that the oranges fell off the trees by scores and hundreds, and the palm trees and eucalyptus drooped their leaves as though

scorched; while many a fair Italian town was subjected to a heavy fall of snow. While so severe a winter might naturally have been expected to drive into such a (comparatively) warm country as Corsica many a rare bird unknown there before, yet in the neighbourhood of Ajaccio nothing of very special interest appeared to our knowledge, nor yet on the eastern coast. A careful study nevertheless of the true winter avifauna of the regions visited gave some interesting and useful results.

It was not a little instructive to watch the Ajaccio market week after week, the daily round becoming more and more fascinating, according to one's familiarity with the stock-in-trade of each stall-holder. In all some eighty species were clearly identified by us, either in the markets, by the aid of the gun, or telescope; while several others are better left without comment, because, not being perfectly identified, they can in no way add to the value of this paper. In the low country bordering the sea on the western coast, it was almost impossible to walk a mile without being struck by the extraordinary abundance of small birds, and some wonderful figures were reported to us respecting the quantity of Blackbirds and Thrushes exported from the island, principally to France, during a single season.

Owing to lack of opportunity, no Gulls could be clearly identified, either on the east or west coasts, except the Black-headed Gull, *L. ridibundus*, though some Herring Gulls about the harbour of Ajaccio were presumably referable to the yellow-legged form (*L. cachinnans*, Pall.).

In the high pine-forests, the snow was too deep to admit of much good work. The majority of our field observations therefore were confined to such birds as could be observed in the proximity of the towns or villages, or on the lower hills bordering the Mediterranean.

Turdus viscivorus, Linn., *T. musicus*, Linn. — Exceedingly common. Numbers sold in the markets for food.

T. iliacus, Linn. — Not so common, but often noted.

T. merula, Linn. — Everywhere in the low country in vast numbers, and also common in the more mountainous districts.

Monticola cyanus (Linn.). — Difficult to obtain a sight of alive, but commonly brought into the markets.

Pratincola rubicola (Linn.). — Everywhere abundant.

Ruticilla titys (Scop.). — A few pairs observed near Ajaccio.

Erithacus rubecula (Linn.).—Very abundant.

Sylvia melanocephala (Gmel.).—One of the commonest warblers from sea-level up to 4000 ft. elevation.

S. atricapilla (Linn.).—Decidedly the most abundant Warbler met with. The numbers in some places very great.

Melizophilus undatus (Bodd.).—A few pairs only met with. Of *M. sardus* we saw nothing, but may have overlooked it.

Regulus cristatus, Koch., *R. ignicapillus* (C. L. Brehm).—Although *R. ignicapillus* abounded, the Goldcrest was decidedly a scarce bird in the district visited by us.

Phylloscopus collybita (Vieill.).—On nearly every manure-heap in the vicinity of Ajaccio one or two of these small Warblers might any day be observed, sometimes three or four together.

? *Acrocephalus streperus* (Vieill.).—A bird shot at, but unfortunately not found in a thick reed-bed at the head of the Gulf of Ajaccio, was apparently of this species. Two or three other marsh-loving species were also evidently near by the notes, but so dense were the reeds that a passing glimpse even was denied us.

Cettia cettii (Marm.).—Both in the Campo dell Oro, and also in a marsh not far from Alata, this bird was met with: very abundant in the former locality. Mr. Whitehead records the Fan-tailed Warbler ('Ibis,' January, 1885, p. 35) as "common and resident in all swamps." Somehow we missed it altogether, or possibly heard the note once or twice in the Campo dell Oro. (In a salt-marsh near to Hyères this bird was apparently abundant, and one was shot by me).

Accentor modularis (Linn.).—Often heard singing round Ajaccio.

Acredula irbii (S. & D.).—Out of a large party of Long-tails in the neighbourhood of Alata, two or three shot were referable to this species; the grey scapulars being very conspicuous.

Parus major, Linn.—This species was often to be seen on newly-ploughed land, feeding along with Wagtails and Pipits. One shot for identification being considerably under the usual size, I here give the exact measurement:—Length, 5·3 in.; culmen, 0·5 in.; wing, 2·75 in.; tail, 2·4 in.; tarsus, 0·7 in. Legs and feet lavender when killed.

P. ater, Linn.—Met with once only on Monte d'Oro.

P. cæruleus, Linn.—Not uncommon.

Certhia familiaris, Linn.—Common in the chestnut woods.

Troglodytes parvulus, Koch.—Quite abundant; observed even up to about 4000 ft. elevation. Also in the marshes.

Motacilla alba, Linn., *M. melanope*, Pall. — Both exceedingly common, but the former perhaps the more so of the two.

Anthus pratensis (Linn.).—In company with the two last-named species, seen on the ploughed land. One shot for identification was undoubtedly of this species, though rather brightly coloured.

? *A. spipoletta* (Linn.).—Mr. Crosfield, my companion in Corsica, a most careful observer, noticed a bird probably referable to this species. The bird was quite close to him in the forest of Vizzavona; elevation above sea-level about 5000 ft.

Cotile rupestris (Scop.).—In the neighbourhood of Ajaccio, more especially towards "les Iles Sanguinaires," they might be observed in considerable numbers. Seen and shot in the Campo dell Oro.

Carduelis elegans, Steph., *Chrysomitris citrinella* (Linn.), *Serinus hortulanus*, Koch.—All fairly abundant, the Serin, however, less so than the rest. A large flock, mainly composed of Citrils was seen near to Bocognano, by the Gravona river, at some 4000 ft. elevation, on December 30th.

Ligurinus chloris (Linn.).—Not uncommon in the low country.

Coccothraustes vulgaris, Pall. — Often brought into Ajaccio market, but never noted alive by us.

Passer italiae (Vieill.).—Exceedingly common in the towns, but apparently scarce elsewhere.

Fringilla cœlebs, Linn.—Ubiquitous.

Linota cannabina (Linn.). — Often seen near Ajaccio, but apparently not specially common.

Emberiza cirrus, Linn.—By no means uncommon; we looked in vain, however, for *E. citrinella*.

Alauda arvensis, Linn., *A. arborea*, Linn. — Both very abundant. The latter might be seen in small parties on waste ground on the lower hills. The *calandra* we never met with, even in the markets. As Mr. Whitehead makes no mention of it in his paper, it is perhaps fair to assume that the bird is not a Corsican species.

Sturnus vulgaris, Linn.—Once only met with in Ajaccio market.

Garrulus glandarius (Linn.). — Apparently not specially common. Occasionally brought to Ajaccio market. One example brought there on January 11th, a male, proved to be a peculiar variety. The general tint of the plumage is much greyer than in the ordinary form of the Jay, and the black streaks upon the head bolder. Examined for me by Mr. Seebohm, it appears to be very like certain specimens in Lord Lilford's collection, collected near Archangel, and resembles one from Turkey in Mr. Dresser's collection, and another from Greece still more so. Although possibly quite as worthy of even specific rank as some other birds which are allowed it, more specimens must be obtained, if possible, from Corsica to prove this Jay as a constant race.

Corvus corone, Linn., *C. cornix*, Linn. — Met with in the vicinity of Ajaccio. [The Magpie apparently does not frequent the island at all, though it is found both in Italy and in Spain commonly. We enquired of local chasseurs, but it was unknown to them.]

C. corax, Linn. — A few pairs observed among the mountains.

Picus major, Linn. — One seen by Mr. Crosfield in the forest of Vizzavona.

Jynx torquilla, Linn. — Very often brought into Ajaccio market. We never saw it alive.

Alcedo ispida, Linn. — One only met with; in the Campo dell Oro on Jan. 2nd.

Circus ? — One or two large hawks were seen, which were apparently Harriers, but the species was not identified.

Buteo vulgaris, Leach. — Decidedly a common bird in Corsica.

Accipiter nisus (Linn.). — By no means common.

Milvus iclinus, Savigny. — Often seen near the Gulf of Ajaccio, sometimes quite near Ajaccio itself.

Falco tinnunculus, Linn. — Exceedingly common bird in the low country. Once a bird was sighted at Bocognano, which was apparently a Merlin, and some small Falcons seen in the neighbourhood of Ajaccio two or three times over appeared from the description given of them most like *F. vespertinus*.

Pandion haliaetus (Linn.). — One pair at least of Ospreys frequented the Gulf of Ajaccio, their resting-place (and doubtless, later on, their nesting-place) being an isolated rock protruding from the gulf some 200 or 300 yards from the shore.

Phalacrocorax. — Cormorants were not unfrequently noticed by us in the distance flying over the Gulf of Ajaccio, which, to judge from size, were probably *P. carbo* (Linn.).

Ardea cinerea, Linn. — Once noted, but apparently not common.

Anas boscas, Linn., *A. crecca*, Linn. — Both common in the marshes. Teal were often brought into the markets.

A. penelope, Linn. — Noted occasionally in Ajaccio market.

Fuligula cristata (Leach). — Several in Bastia market (January 18th).

Mergus serrator, Linn. — Once seen near the shore between Ajaccio and les Iles Sanguinaires.

Columba palumbus, Linn., *C. livia*, Bonnat. — Both brought into Ajaccio market.

Caccabis rufa (Linn.), *Coturnix communis*, Bonnat. — Fair numbers brought into the markets, especially of the latter, of which we noticed some exceedingly fine specimens. The oldest birds seemed decidedly darker in plumage than immature examples.

Rallus aquaticus, Linn. — Very frequent in the markets, and one or two specimens seen were exceedingly large. A female which we bought, however, proved, if anything, below the average size.

Gallinula chloropus (Linn.), *Fulica atra*, Linn. — Observed in the markets. The latter only at Bastia.

Vanellus vulgaris, Bechst. — Seen in flocks near the mouth of the Gravona river.

Scolopax rusticola, Linn. — Ajaccio market. Not abundant.

Gallinago caelestis, Frenz. — Very numerous in the marshes.

G. gallinula (Linn.). — Once brought into the market at Ajaccio.

Sterna fluviatilis, Naum. — Noted in the Gulf of Ajaccio, and shot there.

Larus ridibundus, Linn. — Common.

Puffinus anglorum (Temm.). — This bird was quite numerous in the Gulf of Ajaccio, and was sometimes brought into the market, presumably to be eaten !

Alca torda, Linn. — Abundant in the gulf.

Podiceps fluviatilis (Tunst.). — Once noted in the Campo dell Oro.

NOTES ON THE BIRDS OF DONEGAL.

BY HENRY CHICHESTER HART, B.A., F.L.S.

(Continued from p. 338.)

*RAVEN, *Corvus corax*, Linn.—Breeds and resides in two places in Fanet. Not uncommon in Donegal, and to be met with in the wilder districts, as at Muckish, Slieve Snacht, Lough Salt, &c., inland; and Horn Head, Aranmore, Burton Port, Dunaff Head, &c., along the coast. The Raven is strongly dominant, and by no means decreasing in Donegal. It is commoner in the north than in the south-west. Ravens breed on Aranmore Island, and on Rathlin O'Beirne Island (Reports on Migration 1883, 1887).

*HOODED CROW, *C. cornix*, Linn.—Common, and breeding in many places along the sea-cliffs, as on Tory Island, Knockalla, Carrablagh, Erris, &c. Abundant along the Fanet shore district in autumn, more scattered in winter. The Grey Crow beats away the Kestrel and the Chough from the cliffs it frequents. Both the last-named have been banished from breeding-places at Carrablagh by this bird.

*ROOK, *C. frugilegus*, Linn.—Abundant at every season in Donegal, where there are numerous rookeries of all sizes; sometimes, in the wild districts, occurring in the most trifling and exposed plantations. "During the hard winter I have alluded to (1880-81), I on several occasions saw Rooks eating dead birds, which was a revelation to me. Mr. Murray Stewart's gamekeeper assures me that they suck the grouse-eggs on the mountain adjoining Wood Hill, Ardara, where there is a rookery" (A. B.). Can it be possible that there are any Carrion Crows (*Corvus corone*) about Killybegs?

*MAGPIE, *Pica caudata*, Fleming.—Common and resident in Fanet and elsewhere, usually breeding, if permitted to do so, near dwelling-places. A buff-coloured variety frequented Kilma-crennan in the year 1878.

*JACKDAW, *Corvus monedula*, Linn.—Resident, but not very numerous, in Fanet, except about its breeding haunts. These are situated in holes in grassy or ivy-clad cliffs above the sea, excepting in a few instances where ruins occur. The sea-cliffs are preferred always, if they are to be had, and several of these are inhabited by Jackdaws along the shores of Lough Swilly, as well as elsewhere on the Donegal seaboard.

HOOPOE, *Upupa epops*, Linn.—About the year 1867, as I hear from Mr. Arthur Brooke, Mr. Hamilton, of Fintra, obtained a Hoopoe near Killybegs, and had it preserved.

*CUCKOO, *Cuculus canorus*, Linn.—Arrives in Fanet very numerous about the third week of April, remaining at first about the low-lying moors and hill-side pastures frequented by Titlarks. The country people regard them here as vermin, egg-suckers, and destroyers of young birds. Mr. Brooke saw one on April 11th, 1890, at Killybegs. They are very numerous in his neighbourhood.

KINGFISHER, *Alcedo ispida*, Linn.—Very rare. A Kingfisher frequented Ray Bridge, near Rathmullan, on the shores of Lough Swilly, in the winter and spring of 1881. "A rare bird in West Donegal. I have seen one on the river Finn at Stranorlar, and have been told that a pair frequent the river at Bruckless" (A. B.). Kingfishers are occasionally seen on the Erne near Ballyshannon. One was seen in 1885.

*SWALLOW, *Hirundo rustica*, Linn.—Common in summer. Arrives about the third week of April at Glenalla. Some Swallows nest in caves at Carrablagh.

*MARTIN, *H. urbica*, Linn.—Common along the cliffs of Lough Swilly in summer, and elsewhere in the county. At the seaside Martins seem to prefer cliffs to dwelling-houses. They invariably breed in caves below Carrablagh, but never elsewhere. "Builds under eaves of houses at Killybegs. Saw the first on June 7th, 1890" (A. B.).

SAND MARTIN, *Cotile riparia*, Linn.—I cannot at present recollect a breeding-haunt of the Sand Martin anywhere in this district. But I have met with these birds in the Finn Valley along the banks of the river near Stranorlar. Mr. Brooke also notes their rarity in West Donegal. In July, 1891, I saw a pair of Sand Martins near Killybegs.

*SWIFT, *Cypselus apus*, Linn.—Locally common. I have observed Swifts hawking flies from one summit to the other of Lough Salt mountain in some numbers. But this is probably not a breeding station. Swifts are common about the larger towns, and visit Milford, Ramelton, and other villages. Mr. Brooke reports them plentiful at Killybegs in the breeding season, the first one arrived May 19th, 1890. The Swift has been noticed on Innistrahull from May to June by the light-keeper (Report on

Migration of Irish Birds, 1887). In July, 1891, I noticed Swifts about the summits of the Bluestack Mountains and Slieve League. I also saw them in similar situations on Innishowen on the east side of the county. A pair visited a cave this year below my house on Lough Swilly as if to look for a breeding place. Possibly next year they may nest therein company with the Martins.

*NIGHTJAR, *Caprimulgus europæus*, Linn.—Very rare in Donegal. Mr. Leake, formerly of Greencastle, in Innishowen, heard one at that place about ten years ago. The Nightjar breeds at Lough Eske, near the town of Donegal, and its eggs have been taken (A. Brooke). On Aug. 17th, 1888, I heard a Nightjar at Fahan on the east (Innishowen) side of Lough Swilly. Mr. Brooke has known Nightjars to breed for three years at Lough Eske.

*WOOD PIGEON, *Columba palumbus*, Linn.—Common and resident.

*ROCK PIGEON, *C. livia*, Temminck.—Resident and abundant. They consort with domesticated pigeons occasionally, the latter having become feral. In winter I have seen the two feeding and flying together, and one or two irregularly marked birds frequent caves at Carrablagh in company with the Rock Pigeon.

*PHEASANT, *Phasianus colchicus*, Linn.—Resident where protected.

*RED GROUSE, *Tetrao scoticus*, Latham.—Resident, and would doubtless be numerous, if generally preserved. Mr. Brooke shot one, weighing 29 oz., near Killybegs.

[PTARMIGAN, *T. lagopus*.—These birds have been turned out more than once in Donegal, in the hope of acclimatizing them. Some ten or fifteen birds were tried not many years ago in Innishowen, but they soon disappeared. The mountains are not stony enough. Similarly the Black Cock has been tried, it is said in Antrim, but never with any success.]

*PARTRIDGE, *Perdix cinerea*, Latham.—Resident, but nowhere abundant. In Fanet Partridges were much more plentiful twenty years ago than they are now. The same remark applies to many other parts of the county. Partridges prefer potato-fields to turnips in this county: a favourite food of theirs is the Persicary (*Polygonum persicaria*), which is here usually met with in the potato crops.

QUAIL, *Coturnix vulgaris*, Fleming.—I have never met with

a Quail in Donegal. Mr. Brooke shot one at St. John's Point in 1873, the only one he ever heard of in Donegal. (But see Thompson, 'Birds of Ireland.')

PALLAS'S SAND GROUSE, *Syrrhaptes paradoxus*, Pallas.—A number of these birds visited Donegal in June, 1863. About Dawcross and Naran, and at Glenties, several were shot. Two years later, Lord Francis Cunningham showed me stuffed specimens which had been shot out of this flock. Another specimen is in the National Museum. A still larger flight occurred in the spring of 1888 from north to south of Ireland. An account of this was given by Dr. Scharff in the 'Proceedings of the Royal Dublin Society,' vol. vi. p. 278.

(To be continued.)

ON THE HERPETOLOGY OF THE GRAND DUCHY OF BADEN.

BY G. NORMAN DOUGLASS.

(Continued from p. 341.)

II. Fam. COLUBRIDÆ (*continued*).

As regards the wider distribution of *Elaphis flavescens*, Schlangenbad (whence the name) is the classical locality in Germany. It was discovered here in 1817 by v. Heyden, and is very numerous, a considerable trade being carried on by the country people in supplying this snake to visitors. In the valley of the Moselle its occurrence is well-nigh proved; it also follows the Danube as far north as Passau, though there is no notice of its existence there since 1865. Reports of its capture in other parts of Germany have proved to refer to escaped specimens, or are due to errors of identification.

It was the opinion of v. Heyden that the Æsculap Snake had been imported by the Romans to their thermal stations; at the same time, on this assumption, its absence in similar localities remains unexplained. There is further a note* to the effect that some semi-fossilised vertebræ of a snake, found in Franconia, have been attributed by Prof. Nehring to this species, which would imply its former more extensive range.

* Leydig, 'Thiere des Rhön,' &c., p. 114.

This snake varies individually in temperament, some being unusually pacific, while others are unruly and boisterous. The same might be said of *Coronella austriaca*, *Zamenis viridiflavus*, and many others, including *Pelias berus*, which, according to several writers, is occasionally of very complacent disposition. Amongst lizards a similar diversity prevails: Bell "could not induce" *L. viridis* to bite his hand, whereas other individuals of this lizard are most violent and irritable without any apparent cause; *L. muralis* also often refuses to give vent to those outbursts of passion to which it is so prone. Such traits are all exemplifications of the common phenomenon of individual variation in characters other than purely external, a symptom of peculiar interest from an evolutionist's point of view. All observers, studying one particular species, lay stress on the distinct natures and idiosyncrasies of separate individuals, pointing out differences which would remain unnoticed by the uninitiated. Instances might be multiplied to show that even with reptiles and amphibians, within their less complex sphere of action and passion, these are so considerable that "*quot homines, tot sententiæ*" might almost with equal justice be applied to them. The many records of strange fancies,* of curious sympathies and antipathies, of individual differences in intelligence, demeanour, choice of food, &c., are noteworthy as demonstrating the plasticity of the mental nature which is often, no doubt, severely put to the test.

Similarly, the nervous susceptibility appears subject to an equal variability. This is admirably illustrated in the case of *Hyla arborea*, some individuals of which are more liable to sudden changes of colouring than others. A singular and somewhat analogous instance with *Rana arvalis* is given by Leydig.† Every one who has kept numbers of a species under confinement has observed that the single individuals differ in their powers of enduring cold, heat, &c.

It deserves notice, too, that the locality seems in some degree, as with many higher animals, to influence the psychological constitution. Thus, according to Selys-Longchamps, the

* I will only quote the enormity of *Rana esculenta*, which was observed by a writer in the 'Vienna Ornith. Journal' (Jan., 1887) to seize a swallow resting near the water's edge, and to disappear with its victim into the deep.

† 'Zool. Anzeiger,' 1885, p. 756.

northern *Lacerta muralis* is less susceptible to the sound of music than the Italian race—a statement which I can bear out; the Sardinian Tree-frog is credited by another writer with a more “angry, passionate disposition” than the ordinary form, &c.

All such observations would be comparatively valueless were it not for the fact that definite tendencies, or directions of variation in habits and temperament, are characteristic of certain species. For the effects would otherwise, as with variability in size, or structure, or colour, be “swamped” or neutralised. As it is, we can understand how, under circumstances perpetually changing from an economical and physical point of view, a differentiation in habits may often prove beneficial, if not essential, to the welfare of some members of a community; and this, in its turn, may entail a modification of parts sufficient to warrant the creation of a ‘Nova species.’

5. *Coronella austriaca*, Laur.—The Smooth Snake is not found, I believe, in the actual Rhine-valley, but is sufficiently common on the hills, chiefly in old disused sandstone quarries. Five or six can be obtained in an afternoon without much trouble.

The extreme length of 80 centimètres, often cited, seems a trifle exaggerated, as the Baden specimens, which are by far the largest I have seen, seldom exceed 65 cm. The parallel rows of spots on the back are preserved intact only by the young; whereas with increasing age they tend to coalesce into longitudinal bars, or to form a cross-striped figure, though neither of these patterns are very marked. At other times they become indistinct, in which case the two lateral lines are the first to fade, leaving often only the dark streak through the eye as vestiges. The markings always remain most pronounced in the anterior portions, and the head generally retains to the last the three characteristic transverse stripes. The lower surfaces are reddish with the young, as with English specimens, and darken gradually to a uniform brown with opalescent lustre. The throat remains throughout of a lighter tint. Along the edge of the ventral plates two scarcely perceptible lines of lighter colouring may sometimes, as with *Elaphis flavescens*, be seen.

According to Prof. Nüsslin, a bicephalous individual of this species was caught in 1881 not far from Karlsruhe, and kept alive for some time. This peculiarity does not seem to be as

rare as might be supposed. De Betta records other instances with lizards, *Vipera aspis*, *Tropidonotus natrix*, and one with *Anguis fragilis*. They were all young specimens, and lived but a short time; in the last-named case one head survived the other by about two hours. More recently an interesting account has appeared in an American journal of a double-headed Tortoise, whose two heads performed independently the functions of eating, sleeping, breathing, &c., and appeared also to possess different temperaments.

This snake can sometimes be seen nodding its head, as lizards often do, with a sort of contemplative expression. It was perhaps from noticing this attitude that the observing ancients first called it *drakon*, the animal which looks or regards, rather than solely on account of the brilliancy of its eyes.

And while I am digressing, I may call attention to another point, *viz.*, the signs of attachment to the young or the eggs evinced by this class of animals, instances of which have been given at various times. It appears certainly remarkable that an animal so comparatively low down in the scale should show any care for its offspring; yet we have the frequently quoted testimony of Dr. Settari, who watched a *Coronella* feeding its young with small lizards, which it had previously swallowed. The evidence as to Adders and other snakes allowing their young ones to retreat into their mouth ("swallowing their young") when alarmed by sudden danger, has now become too overwhelming to admit of doubt. Referring to the care of eggs, there are accounts of large storages of eggs discovered in cavities of the ground, which appear to have been simultaneously and purposely laid there by a number of individuals; and we have further the occasional congregating of snakes in masses—notably *Vipera berus*—during the breeding season, which is important as leading possibly to these large deposits of eggs. Gené observed a similar gathering of more than two hundred *Coronella austriaca*, as well as, not far distant, four assemblies of other snakes, which met at the same time and place for eight consecutive years:—"E rivedendo per varii anni de seguito quei luoghi, rividi gli stessi amori e gli stessi innamorati."*

As regards the further distribution of this *Coluber* in Germany,

* Cited by Leydig, 'Einheimische Schlangen.'

it occurs, apparently, in all districts sufficiently dry, but has a decided preference for the hills. In the Alps it rises to a considerable altitude (1900 mètres, according to Fatio); and the few I have caught there, in the eastern portions, are not so brightly coloured, even when young, as those from Baden. In the Palatinate I only obtained one young specimen near the Madenburg, with the light red inferior surfaces; but it is considered fairly abundant throughout the country.

AMPHIBIA.

Order I. ANURA.—1. Fam. RANINA.

1. *Rana esculenta*, L.—Plentiful throughout the Grand Duchy, save perhaps in some of the more barren and exposed parts of the Schwarzwald. It is most abundant in the large forest belt bordering on the Rhine, whose numerous inlets and connecting streams resound with its melodious concerts. Common enough near Carlsruhe:—in the River Alb, already mentioned; in the small lake of the Stadtgarten; in the fountain of the Schlossgarten, and the ponds of the Wildpark. There was formerly also a small colony in some ditches on the Exercierplatz, of which there are now no traces. I have not missed it anywhere in my excursions through the Bavarian Palatinate and Elsaßs.

R. esculenta is visible in favourable localities up to the middle of October, but is far behind the Common Frog in its spring appearance, being seldom in full numbers till the end of April. Single individuals can be met with by the 20th March. Even before this they are roughly awakened by the professional frog-catchers who invade their muddy retreats and carry on a successful business for those who appreciate this delicacy. I have several times caught specimens swimming awkwardly *minus* one limb, who doubtless owed the preservation of their lives to a vigorous and unexpected jerk of the remaining member; but never altogether deprived of their legs, so that I imagine the frog-catchers are fairly merciful, hereabouts at least.

Being pre-eminently aquatic, this species is seldom found far from its element, and if by chance this does occur (for batrachians are often found in the most incomprehensible situations) the skin becomes warty and discoloured. In turbid water and shaded ponds of which the bottom is covered with an accumulation of

dead leaves, &c., it assumes a variable protective resemblance to the surroundings. The chromatopheres are also very susceptible to atmospheric changes.

Several writers have observed a tendency to blue coloration in this species. I obtained an interesting variety of this nature near the village of Forchheim, in a pond in the Rhine woods: the darker markings on the back were perfectly normal, but the green, instead of displaying the yellow fundamental hue, was of a verdigris tint, imparting to the frogs a most curious appearance. I forwarded some of these to Prof. Leydig, who said that the blue colour had not been affected by the journey, but that the day after (having in the mean time assumed a "dark-blue" tint) they were transported in a sack for a short distance, and on being suddenly exposed to the full sunlight the colour rapidly changed to a "light-bluish white." This was due to the contraction of the colour-cells; at the same time he considered that there must have been some permanent modification to produce the original blue colour. I observed this singular variety for three consecutive years at the same locality. The peculiarity, though commoner to the female sex, was exhibited equally strongly by some males, and as other specimens of both sexes showed no traces of it, I should be disinclined to attribute it to the influence of purely external circumstances.

The other variations in colour are produced by the various shades of the fundamental tint, or by the accentuation of the three light-coloured bands on the back. As a rule, the dorsal one is the most pronounced; at other times this is nearly effaced, and the lateral row of pores becomes prominent. A male variety, not rare in the Rhine district, has the head of a nearly pure gamboge colour, as well as a small patch of the same colour on the throat. The yellow pigment on the flanks and hind legs varies considerably in degree.

As naturalists experience some difficulty in catching sufficient numbers of this frog, owing to its extreme wariness and swift movements, I will describe a method of capture which far supercedes the unsatisfactory one usually employed. The intending angler, having attached a small piece of red cloth by way of bait to his line, must hold this touching the surface of the water. He will be astonished to see the frogs (especially in the spring months) wildly endeavouring to seize it, and literally struggling

with each other for the possession of a mouthful. Two or three can be landed simultaneously till a sufficient quantity has been obtained. This may sound improbable: *fiat experimentum*.

As regards the distribution of *R. ridibunda*, Pallas, in Baden, I regret very much being unable at present to include it in this list. Since the publication of the papers* describing this form, a number of successful observers have recorded it from various districts in Germany, chiefly Central and Northern. Unfortunately my free time for observation was very limited during the last years of my residence there, and since the spring of 1889 an entire lack of correspondents has prevented my hearing of its capture. A doubtful specimen has been identified through the kindness of Mr. Boulenger as "*R. esculenta typica*."

2. *R. fusca*, Roesel.—This species has greater capacities for accommodation than the others, and is accordingly well-nigh ubiquitous in Baden. This flexibility further shows itself in the production of a large number of varieties, some of them distinct enough to have perplexed systematic naturalists, while others are only slight modifications of colouring.

Of these latter the form so common in England and Scotland, with the yellowish back indiscriminately blotched with deep black markings, is comparatively rare in the Grand Duchy (it seems to be more common on the Lower Rhine), as also the female form, conspicuous by the bright red colour of the under surfaces, which is abundant in Alpine districts. I have never observed green coloration in any part of the body. The shape of the snout is much less constant than with the following species. The true *platyrrhinus*, Steenstr., of more substantial size and generally rougher skin, is frequent in the hilly parts of the country; while in the Rhine woods I have come across a smaller variety, which I should be disposed to class as the *acutirostris* of Fatio. I have also captured several of the barred var. *striata*, which seems to be sporadically distributed. Their resemblance to *R. arvalis*, though very striking, betokens no relationship, and is only another instance of the curious parallel variability previously noticed. The throat of the male usually assumes the seasonal bluish tinge; in some cases the back is similarly of a pale violet-grey of a very ephemeral nature.

* G. A. Boulenger, 'The Zoologist,' 1884, p. 220; 'Proc. Zool. Soc.' 1885, p. 666. (See also 'Proc. Zool. Soc.' October, 1891.)

I observed a well-marked local variety in the marshy tract where the following species occurs. It is the var. *cinerea* of Koch,* described as:—"A smaller form, resembling a hybrid from the slim character of its build. The protuberance at the base of the fifth toe is normally developed, but the snout is more pointed than with the typical form, thus recalling *R. arvalis*, from which, however, it again differs decidedly by the normally webbed feet, and by the shape of the protuberance. The individuals before me measure 40 to 45 millimètres from the snout to the root of the hind legs. The colour varies between dark ash-grey and brownish-grey, the lighter bars along the sides are completely absent, and the entire upper surfaces (including head) are covered with large and small deep-black spots. These are not, as with the var. *typica*, continued along the hind legs in the form of stripes, or in any case only appear indistinctly as such; the ear-mark is black, with grey spots. This form is rare, and occurs on the peaty ground of the Schwanheimer wood, and elsewhere in the plain." It is a very constant form, the young resembling the adults of both sexes in their speckled markings, and appears to be restricted to this locality.

In consequence of its hardy constitution, this batrachian may still be found at the approach of winter, when the others have already retired. I have seen it up to October 21st and November 1st, and again as early as February 9th and 2nd. But these dates are exceptional for the climate of Baden. The deposit of the spawn is regulated by the state of the weather, and seldom takes place before the first week in March.

The proportion of the sexes seems to fluctuate according to locality. On the whole, the males preponderate considerably, though never to so large an extent as, for instance, with *Bufo vulgaris*.

3. *R. arvalis*, Nilsson. — The distribution of this interesting batrachian is becoming defined with more certainty day by day, in proportion as observers convince themselves of its "specific" distinctness from the foregoing. Without enumerating the many isolated localities, chiefly moorland and peaty districts, where *arvalis* has survived, "a relic of the Glacial Period," up to the

* Koch, 'Formen, &c., der Ecaudaten Batrachier,' p. 140.

present, it is evident that these colonies become fewer and further between as we descend from the north. I presume Transylvania marks, so far as is yet known,* the limit of its southern extension.

In Baden it has been cited from various points of the Rhine Valley,—Manhheim, Freiburg,—and I was fortunate in coming across a new settlement near the village of Eggenstein (about four miles north of Karlsruhe), where this species occurs in great abundance, together with *R. esculenta* and *fusca*. The locality is a swampy depression in the otherwise well-cultivated fields between the village and the Rhine woods, more or less flooded in spring by a small stream running through the centre, while in summer the ground is usually dried up. Though I have never found *arvalis* far beyond the precincts of this, I have no hesitation in predicting that it will turn up duly in many of the similar tracts along the upper Rhine Valley.

The coloration has been so often and admirably described, that I will only note a few points with reference to these individuals from Eggenstein. As I have elsewhere observed,† the striking appearance of the four light-coloured longitudinal fasciæ is more common with the females and young, while the males incline to uniformity of tints. Still, one may also see young and females plainly-coloured, as well as distinctly-striped males; and these dimorphic types, though most pronounced in their extremes, are connected by an unbroken series of gradations. The delicate blue or purple complexion of the males is subject to some variation in degree, being naturally most intense with those individuals which possess that flaccid and loose appearance due to the distention of the lymphatic vessels. As may be expected, it is most pronounced on the throat, though visible also along the sides and back. It gradually vanishes towards the beginning of May, when the other peculiarities of the nuptial costume are in retrogression. The fore legs of the male, whose functions are analogous to those of the hinder legs in lizards, are, like these, disproportionately thickened, and the animals appear at this season even more swollen than *R. fusca*, on account of their slighter build and more pointed snout. The yellow of the sides and hind legs is often very brilliant even with the young, princi-

* V. Mchely, 'Zool. Anzeiger,' 1890, p. 445.

† 'Zoologischer Garten,' 1889, p. 221.

pally with the striated variety. I have detected no traces of green colour. It is worthy of note that the throat, generally pure white or of a bluish tinge, is, with some females, spotted like the lateral portions, and in the corresponding male form of a uniform dark iron-grey; in both cases with a white streak down the centre. This detail becomes more significant when we encounter an identical sexual difference with individuals of *R. fusca*.

Turning to some points of biological interest, it has struck me that the proportion of the sexes is more evenly balanced here than with most batrachians. It seems remarkable that this boreal species, which we should imagine to be less susceptible to cold than *R. fusca*, should nevertheless spawn three or four weeks later: it is as though this habit, necessitated formerly by a more rigorous climate, had been permanently inculcated into the constitution, and we are led to speculate in how far the advantages conferred by such peculiarities—*cf. R. ridibunda* and *Bombinator bombinus*—may have played a part in the gradual differentiation of specific forms. But in the vast majority of cases it is vain to decide the priority between change of habits and modification of structure.

R. arvalis emerges from its winter quarters at Eggenstein towards the end of March. The spawn is not deposited till the beginning of the following month, and then by no means always in the water, but on comparatively dry land (hence distinguishable by its small size from that of *R. fusca*); with the result that, if there is a spell of three or four hot days during the season, great quantities become dried up and wasted. The frogs themselves suffer much from these temporary droughts: the males especially, in their redundant condition, may be found in numbers lying dead or dying on the ground. Whenever possible, they bury themselves under tufts of grass so effectually that, before I was aware of this habit, I imagined the entire colony had emigrated to new pastures, leaving only the unburied dead behind them.

Their aversion to remaining long in the water was also not explained till, after capturing several injured specimens,* I

* Mostly deficient in digits or entire limbs. The same applies to *R. fusca* and *Bufo vulgaris*, which often exhibit curious malformations. The injured part is but seldom renewed in its entirety, as with newts, but only replaced by an indurated growth covering the exposed surface, or forming, in some

noticed that the small stream referred to was full of young pike. They have evidently not that confidence in the element displayed by the edible frog, for, though they jump momentarily into the water on being pursued, they immediately proceed to climb up the bank again, and seek refuge on dry land. This behaviour is singularly analogous to that of the marine *Amblyrhynchus*,* and seems, like it, to be induced by a "fixed and hereditary instinct" of which we may recognise the probable origin in the imperfectly developed web of the posterior feet.

4. *Rana agilis*, Thomas.—This is another of the species whose existence in Baden has not yet been verified. I recollect, about 1884, finding a frog in the "Wildpark" of Karlsruhe, which struck me by its prodigious leaps and the peculiar long-drawn cry which it emitted on being captured; but otherwise I took no further notice of it. Without attaching any importance to this, I cannot help thinking that, in a country so favourably situated as Baden, the presence of this batrachian has as yet merely been overlooked through the paucity or absence of sufficiently eager observers.

It was first signalled as a German species by Dr. Boettger from the neighbourhood of Strasburg,† later on by Leydig‡ from near Würzburg, two points between which a great part of the Grand Duchy lies. It has already been recorded from Switzerland (Fatio, 1861), Hungary (Méhely, 1890), Bohemia (Woltersdorff, 1890), besides a large part of France, so that it will presumably turn up in more localities of the intervening part of Germany.

rarer cases, an incomplete physiological substitute for the lost member. Owing to the position of the eyes, frogs have some difficulty in seeing what is directly before them, and may sometimes be seen, when swimming rapidly, to strike with the snout against the leaves or stalks of aquatic plants. But for many injuries to batrachians it appears we must hold the mollusca responsible. One observer relates how a *R. esculenta*, in its precipitate haste, was received head foremost into the opened valves of a mussel, to the surprise, doubtless, of both parties. I observed a case of multiple digits with a *Triton marmoratus*, from near Paris, which possessed no less than eight toes on one front foot (otherwise normal). This may have been congenital.

* Darwin, 'Voyage of a Naturalist,' p. 387.

† 'Zoologischer Anzeiger,' 1880.

‡ '*Triton helveticus* und *R. agilis*,' 1888; and 'Über unsere braunen Frösche,' 1889.

In some works on the subject this frog is described as of a uniform white colour on the lower surfaces. This is misleading, inasmuch as a distinct network of yellow or reddish colouring between the fore legs can be often detected, and such a statement might cause more hasty collectors to reject this species as a variety of *R. fusca*. The darker streak from eye to eye, perceptible with many batrachians, reptiles, and, curiously enough, among the higher classes of vertebrates, is here rarely absent. Still, this is by no means an infallible mark, as some specimens show no traces of it.

I am not aware whether this species has been mentioned from Meran, in the Tyrol. I obtained there, in 1887, some specimens of the normal type.

NOTES AND QUERIES.

Death of Mr. Charles Jamrach.—With the death of Mr. Chas. Jamrach, at the age of 76, on Sept. 6th, a notable character has disappeared. He was a London merchant, and the commodities in which he dealt were wild beasts. For many a year Mr. Jamrach had traded in this curious kind of stock, as his father had done before him, and his place of business in Ratcliff Highway had long been a sort of Mecca to pilgrims interested in his peculiar wares. Here a tiger might be purchased with no more words than need be expended over the sale of a horse, and an elephant bought as readily as a pair of pigeons in the Seven Dials. A lively crocodile or rattlesnake was always on hand for any one with a weakness for that kind of pet. Here a cockatoo chattered on a perch, hard by a cage in which a dozen or so monkeys hatched plots against its crest and feathers. An anteater lay beside the stove, while an ugly baboon muttered and grumbled over its captivity. Anything or everything could be bought here or obtained within a reasonable time, provided the purchaser was willing to pay the price. Mr. Jamrach had "relations" with the wild-beast men all over Europe; and there was, perhaps, not a Zoological Garden from Stockholm to Naples where he was not well known. His establishment was no doubt one of the sights of London. But after seeing his beasts and birds, his creeping things and his crawling things, and after listening to his professional talk, the visitor left in doubt whether there was any curiosity in his place to equal Mr. Jamrach himself. Certainly to those who like to study their species, the men who came to sell and the customers who came to buy were quite as entertaining as the articles in which they dealt. If a foreign ship had come into port, the chances were that before long he would be visited by some of the crew.

Here was Abdul Ben Ibrim with a Moorish porcupine from Mogador, and a few minutes later Juan de Valdés, who, in broken Spanish, offered a choice cobra for sale. A Cape captain would announce that he had a lion consigned to him from Port Elizabeth, or a whaling skipper from Dundee might inquire what market there was for a first-class Polar bear. Almost any living thing, from a tortoise to eat slugs in the garden, to an elephant to form the central attraction in a show, might either be had or heard of here. These were the palmy days of "the Highway," when the business was so large that the losses by death alone amounted to two or three thousand pounds a year. Latterly, the wild beast merchant had fallen on duller times. The demand for his wares had lessened, and the prices they fetched were poor compared with a period when showmen were more numerous and public taste less sophisticated. The canary trade is no longer in British hands; the Germans have cut into it. Monkeys are not so saleable as they were, snakes have ceased to be profitable, and voyages are too short for sailors to be able to teach parrots the marketable amount of highly spiced language. A hippopotamus or a giraffe has become too common to be costly, when Thibetan bears began to be knocked down at seven pounds apiece, huge elephants at two hundred, hyænas at four pounds eight, vampires at thirty shillings, and boa-constrictors at sixty shillings, Mr. Jamrach must have felt that his occupation was gone.—*The Standard.*

MAMMALIA.

The Polecat in Cambridgeshire.—In your article on the Polecat (p. 281) no mention is made of its occurrence in Cambridgeshire. Is the animal now extinct there? In the churchwardens' accounts from Easter, 1781, to Easter, 1782, of my late Cambridgeshire parish, Dry Drayton, the following item occurs: "Dec. 22nd, paid for two Polecats, 8d." Again, in the churchwardens' account for 1776, among other particulars, the following item occurs: "Oct. 23rd, paid for one Polecat, 7d." There are also records of disbursements for Hedgehogs, Moles, and Sparrows; especially the last, dozens and dozens of them, chiefly between 1770 and 1790. During my incumbency (1873—1880) payment was still made to the village school-master for Sparrows, and to Wilmot, the Mole-catcher, for Moles; but I conclude this was done at the cost of the farmers, as nothing was heard of it at our periodical vestry meetings. While rector of Dry Drayton I never recollect hearing of the Polecat there, but will write, if you wish, to one of my late parishioners, and ask if the animal still occurs there, or has been noted within living memory.—F. A. WALKER (Cricklewood).

The Polecat in Merionethshire.—In the autumn of 1878 a friend, who had been staying at Bala, told me that he had heard from a keeper near there that the Polecat was not at all uncommon in that neighbourhood, and that the keeper was to get him a specimen. A short time afterwards

he received a very fine one, which I saw; so that the keeper's information was probably correct.—O. V. APLIN (Bloxham, Banbury, Oxon).

The Australian Mole-like Marsupial, *Notoryctes typhlops*.—Prof. E. C. Stirling, of the University of Adelaide, has most kindly sent to the Zoological Society an original water-coloured drawing of the newly-discovered Australian marsupial, prepared from a pencil sketch taken from life. The animal is represented upon the surface of one of the red sand-hills in which it passes the greater part of its life, among some tussocks of *Triodia irritans*, the "porcupine grass" of the interior of Australia, and is figured of the natural size. The drawing will be exhibited at the first meeting of the Zoological Society in November next, but in the meanwhile can be inspected in the library by any naturalist who may wish to see it. Prof. Stirling has also sent a copy of his paper in the 'Transactions' of the Royal Society of South Australia (read Feb. 3rd of the present year), in which this extraordinary animal is fully described. The subjoined particulars as to its habits, extracted from Dr. Stirling's article, will be interesting to readers:— "It appears that the first specimen was captured by Mr. Wm. Coulthard, manager of the Frew River Station and other northern runs belonging to the Willowie Pastoral Company. Attracted by some peculiar tracks, on reaching his camp one evening on the Finke River, whilst traversing the Idracoura Station with cattle, he followed them up, and found the animal lying under a tussock of spinifex or porcupine grass. Though he is an old bush hand, with all the watchful alertness and powers of observation usually acquired by those who spend lives of difficulty and danger, this was the first and only specimen of the animal he ever saw. As previously stated, this found its way to the Museum through the agency of Messrs. Benham and Molineux. The three subsequently received shortly afterwards, as well as the last lot recently secured by Mr. Bishop during our journey through the country, were also found on the Idracoura Station. This is a large cattle-run comprising several hundred square miles of country in the southern part of the Northern Territory of South Australia, which lies immediately to the west of the telegraph line between the Charlotte Waters and Alice Springs Stations. The great dry water-course of the Finke River, which runs from north-west to south-east, bounds the run for some eighty miles on the north and north-east. Its distance from Adelaide is, roughly speaking, a thousand miles. Flats and sand-hills of red sand, more or less well covered with spinifex and acacias, constitute a large portion of the country, and the rainfall is inconsiderable. Curiously enough, all the specimens of *Notoryctes* hitherto received by me have been found within a circumscribed area, four miles from the Idracoura Head Station, which is situated on the Finke water-course itself, and almost invariably amongst the sand-hills. I have it, however, on very fair authority, that the animal has been seen on the

Undoolya Station, which lies immediately south of the McDonnell Ranges, and that one also was found drowned after heavy rain at Tempe Downs, a station situated about 120 miles west-south-west of Alice Springs. These points will sufficiently define its range, so far as is known at present. They do not appear to be very numerous. Very few of the white men in the district had ever seen it, even though constantly travelling; and not many of the natives whom I came across recognised the well-executed drawing I carried with me. It must be remembered, however, that I did not pass through the exact spot which so far appears to be its focus of distribution. Nor did a very considerable reward, which I offered, cause any specimens to be forthcoming between the first lot received, over two years ago, and that recently secured during my trans-continental trip. With a few exceptions, the animals have been captured by the aborigines, who, with their phenomenal powers of tracking, follow up their traces until they are caught. For this reason they can only be found with certainty after rain, which sets the surface of the sand, and enables it to retain tracks that would immediately be obliterated when it is dry and loose. Nor are they found except during warm weather, so that the short period of semi-tropical summer rains appears to be the favourable period for their capture. For this suitable combination of wet and warmth, Mr. Bishop had to wait three months before he was able to get them, and in all cases they were found during the day-time. Perpetual burrowing seems to be the characteristic feature of its life. Both Mr. Bishop and Mr. Benham, who have seen the animal in its native state, report that, emerging from the sand, it travels on the surface for a few feet at a slowish pace, with a peculiar sinuous motion, the belly much flattened against the ground, while it rests on the outsides of its fore-paws, which are thus doubled under it. It leaves behind it a peculiar sinuous triple track, the outer impressions, more or less interrupted, being caused by the feet, and the central continuous line by the tail, which seems to be pressed down in the rear. Constantly on the look-out for its tracks, I was often deceived by those of numerous lizards, which are somewhat similar in these respects. It enters the sand obliquely, and travels underground either for a few feet or for many yards, not apparently reaching a depth of more than two or three inches, for whilst underground its progress can often be detected by a slight cracking or moving of the surface over its position. In penetrating the soil, free use as a borer is made of the conical snout with its horny protecting shield, and the powerful scoop-like claws (fore) are also early brought into play. As it disappears from sight, the hind limbs, as well, are used to throw the sand backwards, which falls in again behind it as it goes, so that no permanent tunnel is left to mark its course. Again emerging, at some distance, it travels for a few feet upon the surface, and then descends as before. I could hear nothing of its making, or occupying at any time, permanent burrows. Both my

informants laid great stress on the phenomenal rapidity with which it can burrow, as observed in both a state of nature and captivity." To these notes of Prof. Stirling I may add the remark that this is certainly one of the most extraordinary discoveries in Zoology made of late years. *Notoryctes typhlops*, as shown by Prof. Stirling's full and elaborate description and figures, is unquestionably a new and perfectly isolated form of marsupial life, and must be referred to a new section of the order Marsupialia. We must all congratulate Prof. Stirling on his success in bringing before the world such an important novelty.—P. L. SCLATER (*From 'Nature,' Sept. 10th*).

Daubenton's Bat in Yorkshire.—It is somewhat surprising that this local but widely distributed species has hitherto escaped detection in the broad and diversified acres of Yorkshire. Mr. Basil Carter, to whom belongs the credit of obtaining the first Yorkshire specimen, forwarded to me, for identification, a male which he had shot on the evening of the 19th August last, as it flitted over the river Yore at Masham. It appeared to be accompanied by several others of the same species, and these flew closely round the captor as he lifted his squeaking victim from the water. Mr. James Carter tells me he has often seen similar bats flying over the surface of the Yore, but always failed in his attempts to secure a specimen of what he shrewdly guessed was *Vespertilio daubentonii*. Is Dr. Dobson's description of the tragus, as given in his 'Catalogue of the Cheiroptera' (p. 297)—wherein it is said to terminate in "an acute point"—quite correct? I have this year examined a number of specimens in a perfectly fresh condition, and found that though this organ tapers considerably, yet it is decidedly rounded at its distal extremity; and such is shown to be the case in the enlarged figure of the ear of this species given by Blasius in his 'Fauna der Wirbelthiere Deutschlands' (p. 99).—WM. EAGLE CLARKE (Museum of Science and Art, Edinburgh).

Serotine Bat in Hampshire and Cornwall.—This species certainly occurs on the Hampshire mainland. Mr. F. Bond wrote to me, under date February 5th, 1886, that "he was quite sure he had seen the Serotine and Whiskered Bats between Lymington and Brockenhurst when entomologising there years ago." Lord Lilford also wrote in 'The Zoologist,' 1887 (p. 65), that he had received specimens from Hampshire. Mr. Dobson's Catalogue of the Cheiroptera in the British Museum includes a specimen there which was obtained at Tintagel, in Cornwall.—J. E. KELSALL (Wavertree, Liverpool).

CETACEA.

White-beaked Dolphin.—This species may almost be considered a regular spring visitor to the east coast. Mr. Patterson found one lying dead on the beach near Yarmouth on the 19th April last, and on the 27th August he saw another which was being exhibited on the drive at the same

place. The first measured four feet eight inches, and the second seven feet four inches in length.—T. SOUTHWELL (Norwich).

BIRDS.

Occurrence of the Broad-billed Sandpiper in Norfolk.—A specimen of the Broad-billed Sandpiper (*Tringa platyrhyncha*) was killed on Sept. 5th, in a marsh to the north of Breydon, by a man named Smith (who obtained the two Pectoral Sandpipers already recorded, p. 136), and, after being skinned, was purchased by Mr. Connop, for whose collection it is now being set up by Mr. Cole, of Norwich. I did not see the bird until Sept. 10th, at Yarmouth, after it had been skinned; but, in addition to the appearance of the skin, I had independent evidence as to the fact of the occurrence from two persons who had seen the bird in the flesh. The three previous examples of this species met with in Norfolk were all procured in the spring (see 'Birds of Norfolk,' ii. p. 359); it is therefore of interest to note its occurrence in the autumn on its passage south. So far as I am aware, the sex was not noted, but the dimensions of the bird (namely, beak along the culmen 34 mm., tarsus 23 mm., and wing from flexure 110 mm.) are quite equal to those of the larger bird in the Norwich Museum, procured in Lapland by Mr. Wolley, and exceed those of the male from the Stevenson collection (also in the Norwich Museum), killed in April, 1868, which measures as follows: beak 29 mm., tarsus 20 mm., and wing 110 mm.—T. SOUTHWELL (Norwich).

Manx Shearwater near Malton.—I had a female specimen of the Manx Shearwater, *Puffinus anglorum*, recently brought to me to be stuffed. It was shot on August 26th at Appleton-le-Street, near Malton, as it was rising out of a ditch. I thought this worth recording, as I have not heard of a bird of this species being seen before so far from the sea, namely, twenty-five miles. A severe gale was blowing from the west when it was shot, so it could not possibly have got there from our eastern coast, unless it had been there previously to the gale. It was a mass of fat, but had nothing in the stomach but a greenish fluid.—JOHN MORLEY (King Street, Scarborough).

Wild Duck removing her Eggs.—A mowing-machine was set to work round the outside of a field of lucerne bordering our marsh, diminishing the circle each time round the field, leaving about two acres in the centre. A Wild Duck was seen by the shepherd to fly from the piece of lucerne that was left with something in her beak, and, happening to fly near him, she dropped a three parts incubated egg. She was again observed by the shepherd, and also by the sheep-shearer, carrying another egg in her beak, this time over the marsh-wall towards the saltings; and again she was seen for the third time carrying an egg in her beak in the same direction. On the mowing-machine going to work next day, and finishing the field by

removing the last piece of lucerne, the Wild Duck's nest was discovered, from which the eggs had been removed.—W. PRENTIS (Rainham, Kent).

Little Auk inland.—I have lately seen a Little Auk, *Mergulus alle*, which was taken on a pond in the village of Godstone, Surrey, on the 2nd of December last. The local birdstuffer, in whose possession the bird now is, Mr. Reeves, of Reigate, tells me that when taken it was in a state of extreme exhaustion, which is scarcely to be wondered at, as Godstone must be at least twenty miles as the crow flies from the nearest sea. The weight was $3\frac{1}{2}$ ozs.; sex unnoted. There is this peculiarity in the bird: the breast, instead of being white, as one would expect to find it in mid-winter, is distinctly mottled with black.—E. P. LARKEN (Gatton Tower, Reigate).

Supposed Occurrence of the Kentish Plover at Scarborough.—On Saturday, Sept. 12th, I had two birds brought to me as the Kentish Plover (*Egialitis cantiana*), which had been shot during the afternoon at Cayton Bay, about three miles to the south of Scarborough. They were both immature, but were readily to be distinguished from *Æ. hiaticula* by the smaller size, and the interrupted pectoral band. Unfortunately both birds were very heavily shot, and no care having been taken of them at the time, they were unfit for preservation. These are the first specimens of this species which I have observed at Scarborough, and I am not aware that it has been before recorded for the district.—W. J. CLARKE (Scarborough).

[The "smaller size and interrupted pectoral band" do not distinguish this species from the young of the common Ringed Plover. Our correspondent would have done well to have noted the appearance of the primaries and the colour of the legs.—ED.]

The House Martin as a Cage Bird.—In the first week of July last my friend Mr. W. R. O. Grant obtained for me a nest of four House Martins about a week old. I fed them upon minced raw rump-steak, ants' eggs carefully cleaned, and preserved yolk of egg ground up with maizina wafers in a mortar, and then slightly damped. On this food they attained their full size, and then began to show a decided dislike to the raw meat. Several times a day the young birds were taken out of their basket of hay and allowed to fly about the room. As the Martins now began to show an objection to the confinement of the basket, I purchased for them a large cage, in which I hung up a cocoa-nut nest, in which I placed a piece of flannel. After a very short time they learned to retire to this snuggerly every evening to pass the night, or whenever they felt chilly. At the end of about a month we persuaded the young birds to feed themselves, and then the dangerous time began, since (like all the Swallow tribe when brought up on soft food) they would eat more than was good for them. I now altered their diet, giving "Abraham's food for Nightingales, &c.," moistened ants' eggs, flies and mealworms cut up; nevertheless, three of

the birds quickly succumbed to over-eating. The fourth bird lived on happily until the morning of Sept. 18th, when I found him also dead at the bottom of the cage, after being the pet of the family for about two months and a half. Of all the birds I ever kept, and I must have had at various times something like sixty different species, none have proved so confiding, intelligent, or entertaining as these little Martins. Nothing pleased them better than to lie in the hollow of one's hand, and go to sleep there; they would come at once when called, fluttering up one's arms and settling on the shoulder. One of them, if held up by my son, would spring up and peck the tip of his nose. In spite of their short legs, if placed at a distance on the ground and then called, they would scramble towards us with surprising swiftness. Only two days before the death of my last bird I ran upstairs as soon as I got home to see how he was; but he had retired early to roost. I called out, "Well, little chap, how are you?" He popped his head out, and, seeing me, sprang down to the door of the cage; I opened it at once, stepped back to the end of the room, and then called him; he immediately flew to me, and nestled down in my hand. Martins are the first birds which I have ever known to evince genuine affection, since they would at once leave their food in order to come to us to be petted. There is only one drawback to keeping them as cage-birds; their wings are so long and their legs so short that they get very dirty, both tail and wings being dragged constantly through the dirt; and then they have to be washed, which tends to give them cold. It is also difficult to provide them with a uniformly warm temperature.—A. G. BUTLER (Beckenham).

The Song of the Redwing.—Mr. Butler, if founding his statement (p. 352) on observation of the habits of a pair of Redwings confined "in a large aviary for two years," is hardly in a position to "state positively" the characteristics of the song of the species. My authority for this remark may be found in the extraordinary extent to which the voices of the great majority of our song-birds are affected, in captivity, by the influences incidental to residence in or near human habitations. One has only to turn over a few pages of ornithological works to meet with recorded instances of cage-birds such as Whinchats, Linnets, and Redstarts, to say nothing of more apt natural mimics, having uttered the perfect strain of some wild bird. Three of such instances have come under my personal observation: A Sky Lark imitated the song of the Wren so exactly and repeatedly that I was deceived—this bird was caged closed to a country garden; a Linnet, in a country signal-box near trees, similarly deceived me with a splendid song of the Blackcap; and a tame cock Blackbird—an excellent singer—in my possession, reproduced in every detail a wonderful association of sounds caused by the daily opening of a window thirty yards distant from his cage. In studying bird-song, I have acquired some proficiency in detecting whether singers, such as Blackbirds and Thrushes,

heard at a distance are free or caged ; and I may say that it is generally possible to be absolutely certain upon this point. Under the distracting influences of life in a cage, the Sky Lark soon changes its notes, or perhaps, if reared from the nest, never acquires them in their native accurate reproduction of field-sounds, prominent among which (in Gloucestershire) are the voices of the Buntings, Swallow, and Peewit. It is probable that in the songs of Mr. Butler's Redwing there are hardly any notes of the free birds, whose songs can only be recorded on the evidence of persons who have heard them in a state of nature. May I add that I shall be glad to receive notes relative to bird-song, on which I hope soon to publish some interesting observations.—CHARLES A. WITCHELL (Stroud, Gloucestershire).

Egyptian Goose in Devon.—An adult male of this species was shot on the River Exe on May 9th. It was in good plumage, and not the slightest trace was visible of its ever having been in captivity. The probable cause of its appearance at that time of the year is, that possibly during the past severe winter a pair of these birds strayed from their home, wherever that might be : one no doubt fell to the gun of a wildfowler, whilst the survivor wandered about in search of its companion up to the time of its destruction in May last. From inquiries made, I find that no Egyptian Geese are kept within several miles of the place where this bird was shot : in fact, I think I am right in saying that none are kept in this county. Like the Canada Goose, it is an introduced species, and has never been known to cross the Mediterranean in a wild state ; hence my reason for not including it in my 'Birds of Devonshire.' The bird in question is now being preserved for my collection.—W. E. H. PIDSLEY (Blue Hayes House, Broadclyst, Devon).

MOLLUSCA.

A Sinistral Variety of *Helix hortensis*.—Mr. H. E. Quilter has been kind enough to forward to me a number of very fine specimens of *H. arbutorum*, Linné, collected at Boulogne-sur-Mer in August, 1890, by Mr. J. Palmer, of Leicester, amongst which I find there are two specimens of *H. hortensis*, Müller, one a sinistral form of the variety *unicolor*, Pascal, and the other the variety *lutea*, Moq.—W. E. COLLINGE (Leeds).

SCIENTIFIC SOCIETIES.

ENTOMOLOGICAL SOCIETY OF LONDON.

September 2, 1891.—Mr. FREDERICK DUCANE GODMAN, M.A., F.R.S., President, in the chair.

Mr. W. H. Blaber, of Groombridge, Sussex ; Mr. T. D. A. Cockerell, F.Z.S., of Kingston, Jamaica : Mr. R. E. V. Hanson, B.A., of Tunbridge

Wells, Kent; and Mr. R. C. Wroughton, of Poona, India, were elected Fellows of the Society.

Mr. G. F. Scott-Elliot exhibited a series of various species of Diptera collected on *Ranunculaceæ*, *Papaveraceæ*, and *Cruciferaæ*. He said that during the past summer he had studied about forty species of plants belonging to the orders named, and that they had all been visited by insects which were probably necessary for nectariferous flowers. The majority of the Diptera caught were not confined to one species or even genus, but in view of the unmodified character of the flower in the orders named this was only to be expected. Mr. Verrall observed that certain insects affected certain plants, but that the *Geraniaceæ* were seldom visited. The discussion was continued by Mr. M'Lachlan, Mr. Kirby, and others.

Mr. W. L. Distant exhibited a specimen of the orthopterous insect *Hemisaga hastata*, de Sauss., which, in the Transvaal, he observed to attack and feed on *Danaïs chrysippus*, a butterfly well known from its protective character and distasteful qualities to have a complete immunity from the usual lepidopteral enemies. The *Hemisaga* lurked amongst the tops of tall flowering grasses, being consequently disguised by its protective resemblance to the same, and seized the *Danaïs* as it settled on the bloom. From close watching and observation Mr. Distant could discover no other danger to the life of this well-known and highly protected butterfly.

Mr. T. R. Billups exhibited four species of Diptera, which he believed to be respectively *Oxycera terminata*, Meg., *Pipizella annulata*, Meg., *Clidogastra punctipes*, Meg., and *Oxyphora arnica*, L., taken at Oxshott, Surrey, on the 11th July last. He mentioned that all of them were recorded in Mr. Verrall's list only as "reputed British." He also exhibited a specimen of *Hypoderma bovis*, Deg., taken at Plumstead on the 29th July last.

Dr. D. Sharp exhibited several species of *Forficulidæ*, and called attention to the diverse conditions of the parts representing the wings in the apterous forms.

Mr. H. Goss exhibited living larvæ of *Scoria dealbata*, reared from ova. They were feeding on *Polygonum aviculare*, but not very freely; *Brachypodium sylvaticum* had been named as a food-plant for this species, but he did not find that the larvæ would eat this or any other grass.

The Rev. Dr. Walker exhibited, and read notes on, a collection of Lepidoptera, Hymenoptera, Coleoptera, Neuroptera, and Diptera, which he had recently made in Norway. Mr. Champion, Mr. Billups, and Mr. M'Lachlan took part in the discussion which ensued.—H. Goss, *Hon. Sec.*





L. Hutchinson lith.

The Pine Marten
Martes sylvatica Nüssli

From Newman's 1891